

Criorhina verbosa Walker is usually taken in early spring about willow bloom, but whether it has any other relation to the swamp, or whether it emerges at a time when it is compelled to seek the willows as the only available source of food is questionable.

It appears that the few Syrphidæ larvæ which have an aquatic habitat do not frequent clear streams or pools but always stagnant waters that contain a large amount of organic matter. The special adaptation of the larva by which they are able to maintain respiration while submerged, lies in the elongation of the terminal appendage containing the posterior stigmata. This organ can be elongated so as to reach the surface in shallow water and can be withdrawn. This applies also to species living in sap and resin.

THREE NEW CICINDELIDS.

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Cicindela Smythi new species (fig. 1).

Head and thorax green with coppery reflections; elytral ground dull coppery, densely punctate green; markings entire and all very broad, marginal band merged with both lunules and one third of the elytral width; humeral lunule a trifle more than one third the elytral length, crescent shaped, recurved at extremities; middle band sharply reflected near suture, and terminating with hook; apical lunule at apex continued forward on sutural line.

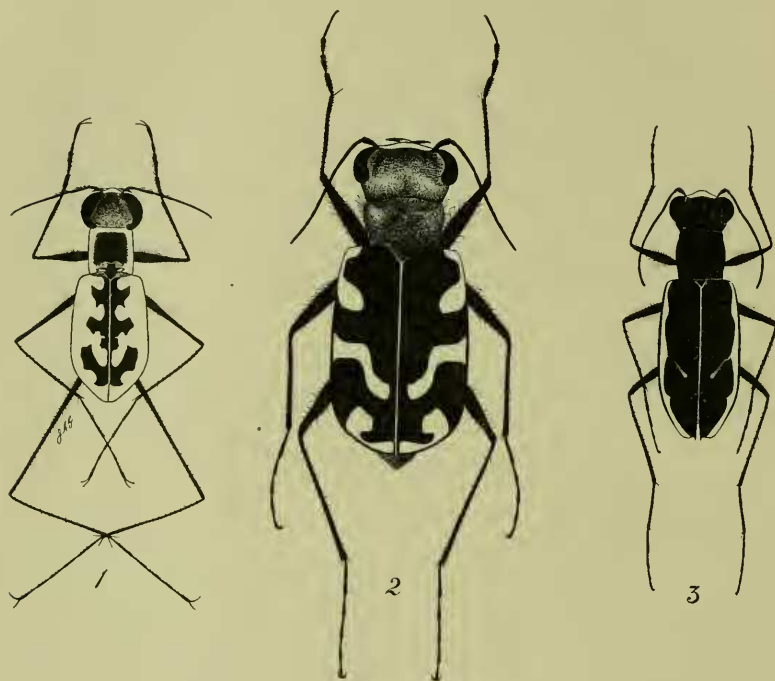
Eyes large, prominent and converging in front; front finely rugose, a single seta above the eye; thorax densely punctate; beneath green, shiny, naked except at sides; basal joints of antenna, femur and tibia of the front and middle leg, sides of thorax and body clothed with white hairs; legs green, shiny, very long—the femur of hind leg being as long as combined thorax and elytra, and the combined femur, tibia and tarsus being more than twice the length.

Not as parallel in outline as *chlorocephala*, more metallic, elytra more rugose, maculation much broader, the lunules and marginal band confluent, not separated, much more pilose. Length 8-9 mm.; length hind legs 15 mm.

Taken by Eugene G. Smyth at the ocean side of Padre Island, Texas, in June, running on the sand with *Saulcyi* and *media*, not plentiful, very swift on foot.

Allied to *C. chlorocephala* Chev., and possibly a variety of this

species, though with certain racial features that may entitle it to specific value.



Cicindela Lantzi new species (fig. 2).

Above dull greenish, with coppery reflections quite pronounced on front and thorax; markings consist of lunules complete, and middle band; the humeral lunule is emphasized posteriorly, not recurved; middle band proceeds from margin transversely one half the elytral width, thence obliquely descending and gently turning at the extremity towards the suture. The markings resemble those of *C. echo*, and also of *pseudosenilis*, but the humeral lunule is less arcuate and the middle band more sinuous than in either.

Head finely granulose at base, the front moderately rugose; labrum white, short, and furnished with three teeth, the middle one slightly the larger. Thorax convex, slightly broader anteriorly, moderately granulose, hairy at sides. Elytra widest at posterior third, rather flattened, humeral angles distinct, surface smooth, slightly and evenly punctate without foveolæ.

Beneath green, sides of thorax and prosternum brilliant coppery, and slightly pilose. Length 11 mm.

Taken by D. E. Lantz on a newly worked road at the side of a gravel hill in Jefferson, Col., in July, in company with *C. laurentii* and *C. graminea*.

Its resemblance to several of the alkaline lake forms in its markings renders it a peculiarly interesting species, but it is readily separated from them by its distinctly toothed labrum, the smoother and less shining elytral surface, and the slight but significant differences in the maculation.

Cicindela debilis var. *segnis* new var. (fig. 3).

Head, thorax and elytral ground dark green; beneath green, shiny; maculation a continuous whitish band the entire elytral length slightly removed from the margin except near the apex, the positions of the lunules and middle band indicated by slight widenings of the marginal band; frequently the middle band is existent as a narrow, faint oblique line, nearly straight, somewhat broadened at sutural termination.

Eyes large, front finely rugose, thorax narrow, as wide as long, nearly cylindrical, slightly pilose at sides, humeral angles square, elytra shagreened, in form regularly ovate, separated posteriorly along the sutural line nearly one third the length, rounded at apex, and at sutural angle terminated with short black spine, which is more pronounced in the male. Length 9-10 mm.

Taken running on sand at Sonoita, Ariz., by Eugene G. Smyth in July.

A varietal name seems to be warranted for a form so widely removed geographically from the type locality (Durango, Mexico), by the difference in the elytral sculpture, in its larger size, and in its color. Bates described *debilis* as "*fusco-nigra, raro viridis, subtus nigra vel cyanca.*" All the Arizona specimens secured by Smyth were green.

FREDERICK BLANCHARD.

In the death of Frederick Blanchard on November 2, 1912, the students of North American beetles have lost a faithful aid and correspondent, and many of us a dear friend.

Frederick Blanchard, the son of Cornelius and Sarah (Sherburne) Blanchard, was born August 20, 1843, at Lowell, Mass., and lived there and at Tyngsboro, all his life. His business life was spent in the First National Bank of Lowell, and in the Prescott National Bank